

iC-ODL OBGA ODL2C

PACKAGE SPECIFICATION



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ORDERING INFORMATION

Type	Package	Options	Order Designation
iC-ODL	optoBGA™ ODL2C	none	iC-ODL OBGA ODL2C

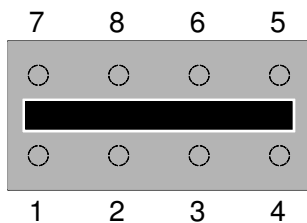


9.5 mm x 4.7 mm

PIN CONFIGURATION

PIN FUNCTIONS

(top view)



No. Name Function

- | | | |
|---|------|--------------------------------------|
| 1 | VCC | +(3.9) 4.5 to +13.2 V Supply Voltage |
| 2 | IAC1 | Current Output 1 |
| 3 | IAC2 | Current Output 2 |
| 4 | GND | Ground |
| 5 | n.c. | |
| 6 | n.c. | |
| 7 | n.c. | |
| 8 | n.c. | |

ABSOLUTE MAXIMUM RATINGS

Item No.	Symbol	Parameter	Conditions	Fig.	Min.	Typ.	Max.	Unit
TG1	Ta	Operating Ambient Temperature Range			-20		90	°C
TG2	Ts	Storage Temperature Range			-30		110	°C
TG3	Tpk	Reflow Soldering Peak Temperature	tpk < 20 s, convection reflow				245	°C
			tpk < 20 s, vapour phase				230	
			TOL (time on label) 8 h; please refer to Customer Information #7 for details					

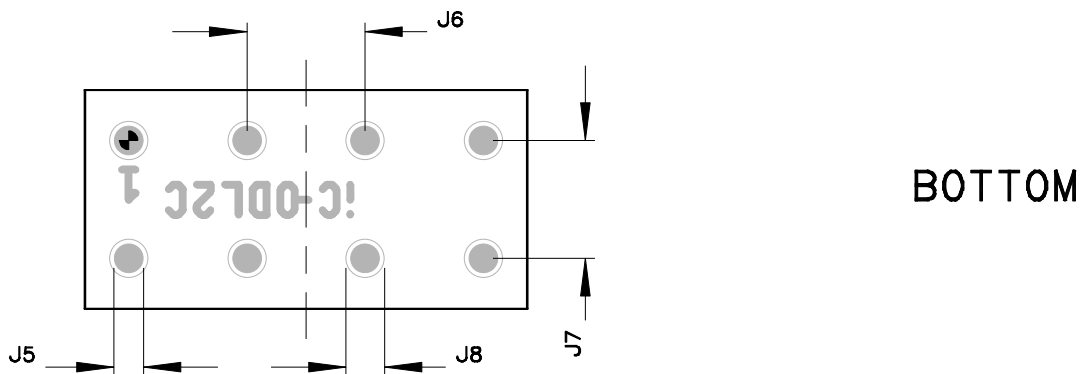
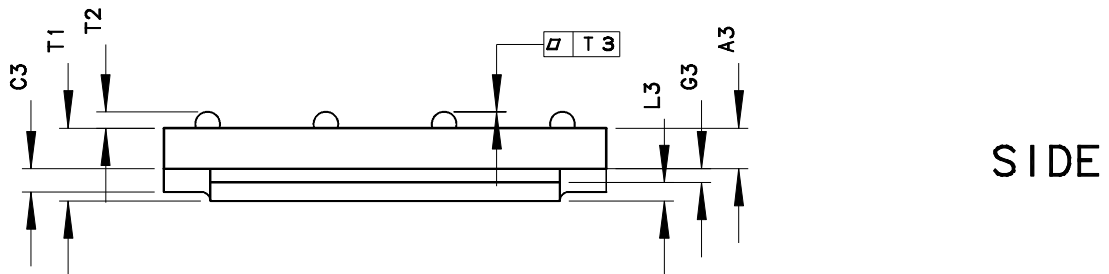
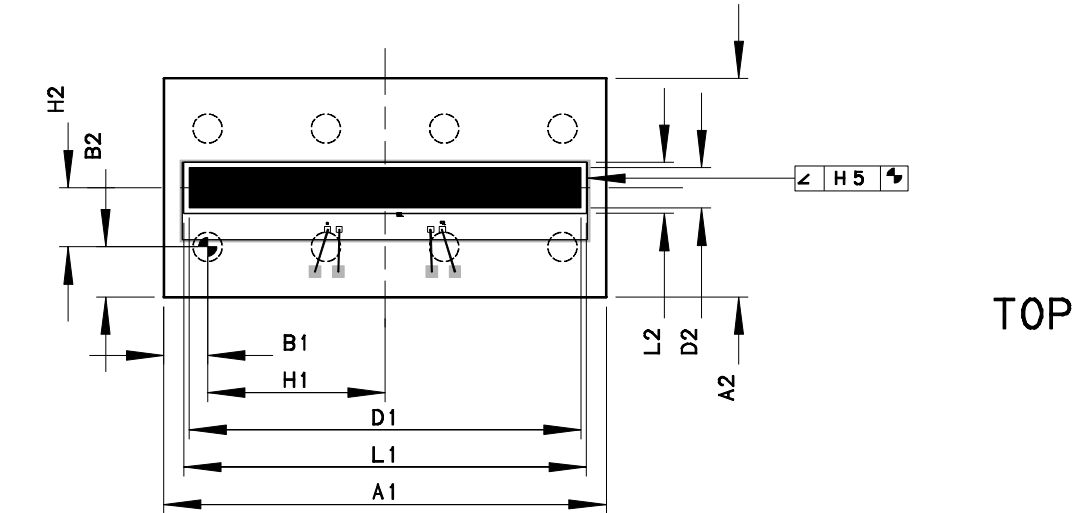
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PHYSICAL DIMENSIONS



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DIMENSION TABLE

Item	Parameter	Comments	Min.	Typ.	Max.	Tolerance	Unit
Substrate							
A1	Outline X			9.5		±0.1	mm
A2	Outline Y			4.7		±0.1	mm
A3	Substrate Thickness	bottom package to bottom die		0.87			mm
Reference							
B1	Outline vs. Reference X	bottom lead #1 center is reference		0.94		±0.15	mm
B2	Outline vs. Reference Y	bottom lead #1 center is reference		1.08		±0.15	mm
Encapsulation							
C3	Mold Thickness	note ¹⁾	0.5		0.8		mm
Optical Sensor							
D1	Sensor Size X			8.42			mm
D2	Sensor Size Y			0.87			mm
Chip Placement							
G3	Chip Thickness			0.3		±0.025	mm
H1	Chip Position vs. Reference X	reference vs. center of sensor		3.81		±0.15	mm
H2	Chip Position vs. Reference Y	reference vs. center of sensor		1.27		±0.15	mm
H5	Chip Tilt Angle vs. Paddle					±1.6	DEG
Bottom Metal Pattern							
J5	Lead Size			0.635		±0.03	mm
J6	Lead Pitch X (or Lead-Lead Distance X)			2.54			mm
J7	Lead Pitch Y (or Lead-Lead Distance Y)			2.54			mm
J8	Solder Stop Off			0.835		±0.1	mm
Glass Cover							
L1	Glass Size X			8.65		±0.05	mm
L2	Glass Size Y			1.1		±0.05	mm
L3	Glass Thickness			0.4		±0.03	mm
Thickness Specifications							
T1	Overall Thickness	note ¹⁾ , bottom substrate to top of glass	1.40		1.75		mm
T2	Solder Ball Height	drawing not to scale	0.36		0.5		mm
T3	Solder Ball Coplanarity					±0.1	mm

Notes: ¹⁾ adjusted to glass top surface

REVISION HISTORY

Rev	Notes	Pages affected
A1	Initial version	all
A2	RoHS compliance	1, 4
B1	Absolute Maximum Ratings: TG3 Dimension Table: A3, T1	1 3
C1	Convection reflow soldering peak temperature reduced to 245 °C	1, 4

GENERAL HANDLING INSTRUCTIONS

After opening the dry pack, devices must be mounted within 8 hours (in factory conditions of maximum 30 °C/60% RH) or must be stored at < 10% RH. Devices require baking before mounting if the Humidity Indicator Card shows > 10% when read at 23 °C ±5 °C or if the conditions mentioned above are not met. Devices may be baked for 72 hours at 100 °C using high-temperature device containers (trays).

Samples

Samples are not subject to dry pack delivery and are not intended for reflow soldering. Remove any protective film – if present – before tempering or soldering. Use tweezers, pull upwards slowly, any horizontal pulling must be avoided. Do not touch the iC surface after removing the film. Never press on the iC coating.

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We understand suitable application of our published designs to be state-of-the-art technology which can no longer be classed as inventive under the stipulations of patent law. Our explicit application notes are to be treated only as mere examples of the many possible and extremely advantageous uses our products can be put to.